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The Armenian Labor Market in Transition

Issues and Options

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and
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Armenia, like all of the economies of the former Soviet Union, faces a host of problems in reforming the labor market: choosing the right pace for reallocating labor, setting up a well-functioning wage determination system, fostering geographic mobility, providing adequate income support to the jobless and the poor, and designing appropriate active policies for the labor market.

This paper — a product of the Transition and Macro-Adjustment Division, Policy Research Department — is part of a larger effort in the department to investigate how labor markets work during the transition of socialist economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Susana Florcz, room N11-017, extension 39075 (September 1993, 34 pages).

Reform of the labor market in the former Soviet Union (FSU) is essential to increase productivity. The transition of the FSU economies to a market economy must involve a massive displacement of workers, and will entail labor shortages for certain skills. A key challenge will be to reallocate labor at the lowest social costs.

Vodopivec and Vroman identify key labor market issues in Armenia, reflecting on the dilemmas and options policymakers face both in Armenia and elsewhere in the FSU.

Armenians are ardent advocates of radical reform and have already made progress in several areas (including successful privatization of land in 1990). But the Armenian transition is taking place in particularly unfavorable circumstances — including a severe energy crisis because of an economic blockade imposed by neighboring Azerbaijan.

In Armenia, current labor policies represent a step in the right direction because they leave primary responsibility for finding a job to the individual. The state's role is simply to provide a social safety net and to create an environment that generates jobs. Tangible progress has been made but the adjustment process has just begun and is hindered by inconsistent labor policies —

in some areas too radical and in others smacking of the old interventionism.

Vodopivec and Vroman offer several general policy guidelines:

- Undertake several initiatives, not just one — possibly worker training as well as job search assistance, self-employment grants, and temporary public employment.
- Use some resources to monitor and evaluate interventions, so you find out "what works."
- Coordinate active policy interventions and the interface between active and passive instruments.
- Be prepared to change as the macroeconomic environment changes, and take advantage of the current climate. Under high inflation, for example, consider widening the wedge between wages and various cash and in-kind transfers. When inflation abates, consider paying cash benefits on the basis of prior earnings.
- Above all, be flexible and sensitive to signals and changes in signals. Among policy options, one size does not fit all.

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**THE ARMENIAN LABOR MARKET IN TRANSITION:
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Former socialist economies of Eastern Europe and Soviet Union are starting to fundamentally restructure their economic and political systems -- with the clear goals of a market economy and multiparty systems. Labor market reform is essential these efforts. First, due to numerous, severe rigidities of the labor market under the communist regime, the labor market has functioned extremely inefficiently. Hence labor market reform is a prerequisite for achieving productivity increases. Second, labor market policies should also contribute to sustainability of overall reforms, by alleviating the costs connected with labor reallocation that ultimately will be required in these economies.

Based on the account of the transition of the Armenian labor market to date, the purpose of the paper is to identify the main issues of the transition related to the labor market, as well as reflect on the dilemmas of and options for policy makers both in Armenia and elsewhere in the Former Soviet Union (FSU). As in many FSU economies, current Armenian labor market policies represent the first, but decisive, step in the right direction: they leave primary responsibility for finding a job to the individual, and let state provide a social safety net and a conducive environment for generation of jobs. Some tangible progress has been achieved, such as the introduction of unemployment benefits and flexible layoffs, freeing of wages, and easing the pressure on enterprises to hire. But the adjustment of the Armenian labor market is still in a very early stage. Although enterprises have significantly shrunk their employment in 1992, it seems that they have done so primarily through the shedding of pensioners, a much less painful adjustment process than factory closings and other mass displacements which have barely started. The adjustment process is hindered by inconsistent labor market policies. These policies are in some areas too radical, and in some others still smack of old interventionism, in either event leaving ample room for improvement.

Although the paper aims at discussing generic issues of labor market transition to a market economy, the choice of Armenia necessarily introduces some of the country's specificities. Chief among them are the following two. In contrast to many other former republics of Soviet Union, Armenians are very ardent advocates of radical reforms, and have already made good progress in several areas (including successful privatization of land in 1990). But (on the negative side) the

Armenian transition is taking place in extremely unfavorable external circumstances — there is a severe energy crisis due to economic blockade imposed by neighboring Azerbaijan.¹

We review the main features of the Armenian labor market in section 1, describe recent institutional reforms in section 2, identify major issues and reflect on options available to policymakers in section 3, and provide concluding remarks in section 4.

1. An Overview of the Armenian Labor Market

The following major features of the Armenian labor market — many of them produced by the rigidities of the Soviet regime, and hence shared by all FSU economies — can be identified: predominance of state sector employment; recent expansion of non-state employment; hidden unemployment; nascent open unemployment; concentration of employment in industry; non-existent part-time work; pay egalitarianism and distorted interindustry wage structure; divergent trends in productivity and real earnings; relatively high labor turnover and low geographical mobility; high female labor force participation; good formal education of the labor force, and modest population growth. Moreover, due to the political conflict with neighboring Azerbaijan, there has been a large net inflow of immigrants since 1988.

Predominance of state sector employment. A feature of socialist economies that has profoundly influenced their operation is the predominance of state sector employment — the sector that has always been preferred by the authorities in socialist countries. This goal was originally achieved by nationalizing most of the means of production, leaving limited scope for the private sector. Private sector was kept insignificant by legal limitations, discriminatory taxation, and limited access to and unfavorable terms for credit.

In 1991, Armenian state sector provided jobs to 1,217 thousand workers — more than three quarters of all employed workers (table 1 in appendix). But since its peak in 1987, state employment has been steadily declining, particularly strongly in 1991, when it shrunk for nine percentage points (from 84.9 percent to 75.9 percent of the national total).

¹ Due to the blockade, only about 30 percent of industrial enterprises were operating in the beginning of 1992.

Recent expansion of non-state employment. The decline of state sector employment was largely due to the official sanctioning of non-state employment in cooperatives and private farms. Cooperatives emerged in 1987 and their employment expanded very dynamically during 1988-1990 (table 1). Though their employment declined in 1991, that year they still employed 120,000 workers

Table 1: LABOR FORCE, 1980-1991
(in thousands)

	1980	1985	1986	1987	1988	1989	1990	1991
State Sector Employment	1218	1388	1403	1417	1406	1350	1330	1217
Percent of women	44.8	46.9	47.0	47.6	47.7	48.0	48.6	48.5
Cooperatives	---	---	---	1.7	41.6	82.5	127.4	120
Percent of women	---	---	---	29.4	41.8	44.1	38.4	37.5
Kolkhozi	79.8	74.1	73.1	69.9	57.4	54.1	53.6	12
Percent of women	46.0	43.5	43.6	42.8	46.5	45.8	44.6	41.7
Private Agricult.	78.9	83.4	92.1	93.3	102.5	101.8	114	264
Percent of women	88.1	86.9	87.3	86.5	83.3	80.0	76.8	61.0
Private Non-Agriculture	0.8	0.9	1.2	1.3	5.1	3.4	5.6	6
Percent of women	37.5	33.3	33.3	30.8	41.2	27.8	23.2	40.0
Total Employment	1377.5	1546.4	1569.4	1583.2	1612.6	1592	1630.6	1619
Percent of women	47.4	48.9	49.2	49.7	49.7	49.7	49.5	49.6
Unemployed	---	---	40	50	30	60	60	63
Percent of women	---	---	15.0	15.0	15.0	15.0	15.0	15.0
Total Labor Force	1377.5	1546.4	1609.4	1633.2	1642.6	1652	1690.6	1684
Percent of women	47.4	48.9	48.3	48.6	49.1	48.5	48.3	48.3

Memorandum items:

Share of State Employment (including kolkhozi)	94.2	94.5	94.1	93.9	90.7	88.2	84.9	75.9
Unemployment rate	---	---	2.5	3.1	1.8	3.6	3.5	3.9
Working age popul.	1807	1957.3	1979.4	1998.8	2001.2	2008.1	2021.1	2039
Participation rate	76.2	79.0	81.3	81.7	82.1	82.3	83.6	82.6
Part. rate - women	70.8	75.8	77.0	77.9	79.0	78.2	79.2	78.2
Part. rate - men	81.9	82.4	85.8	85.7	85.3	86.5	88.2	87.2

Sources: Statistical Office of Armenia; Ministry of Labor of Armenia (unemployment estimates).

Notes: Data for 1991 are preliminary. Unemployment rate is defined as the percentage of unemployed in the labor force. Participation rate is defined as the percent of the labor force in the working age population (age 16-59). Under private agriculture, persons officially labelled "employed in auxiliary activities" are also included. In 1991, there was an increase of private farmers due to the privatization of land.

(7.1 percent of the labor force).² Private farming was strongly boosted by the 1990/91 privatization of land; new private farmers were recruited not only from former state and cooperative farmers, but also from workers who had previously worked in the state sector outside agriculture.

Hidden unemployment. Together with the other socialist economies, Armenia has suffered considerable hidden unemployment (overstaffing). Estimates of the rate of hidden unemployment (expressed by government officials and enterprise managers) ranged from 20 to 30 percent. (According to some reports, underuse of work time -- a proxy for hidden unemployment -- in Eastern European countries has ranged from 10 to 30 percent).³

The following factors contributed to hidden unemployment. First, under soft budget constraints, firms hoarded labor so as to improve their ability to (over)fulfill the production targets set by the center. Second, once employed, workers had no fear from losing their jobs -- they could be dismissed only for seriously breaching work discipline (with unexcused absences, for example, or drunkenness on the job). Such a virtually complete job security reduced the ability of the firm to adjust its workforce effectively. Third, firms were forced to hire workers through both administrative job assignments, as well as informal pressures by Party officials.

Nascent open unemployment. As in other socialist economies, open unemployment was not officially recognized under the Soviet regime -- which is not to say that it did not exist. Absent official statistics, one could only rely on estimates of unemployment. Estimates of Armenian unemployment since 1986, however, are based on surveys conducted by village soviets (in rural areas) and district police (in urban areas), and thus seem to be more than just "educated guesses." According to these estimates, the unemployment rate has increased from 2.5 percent in 1986, reaching a rather modest 4 percent in 1991 (table 1).⁴

² Total employment in cooperatives was 143,000, implying that 23,000 workers worked both in state enterprises and in cooperatives ("sovmestytely").

³ Enterprises could afford hidden unemployment because they faced soft budget constraints (see, for example, Vodopivec (1991a).

⁴ Oxenstierna (1991) reports unemployment rate of 3-6 percent for the whole USSR in 1989.

Concentration of employment in industry. Armenia's employment composition is similar to that of other socialist economies. Employment concentrated in industry: in 1990, industry absorbed 43 percent of workers; 18 percent of workers were farmers; and only 39 percent of workers was employed in services (table 2). Moreover, contrary to the long-term trends in developed market economies, the share of employment in industry increased during the latter half of the 1980s (table 3). High-income OECD countries have much larger service sectors. Armenia's underdeveloped service sector thus provides ample opportunities for future expansion (in areas such as financial services, catering and tourism, insurance, consulting, etc).

**Table 2: COMPARISON OF EMPLOYMENT COMPOSITION, 1989
(percentage)**

	Agriculture	Industry	Services
Armenia (1990)	18.2	43.0	38.8
Socialist countries			
East Germany	10.3	45.4	44.4
Czechoslovakia	11.7	47.1	41.1
Bulgaria (1988)	19.3	46.3	34.4
Soviet Union (1988)	20.2	35.2	44.6
Hungary (1985)	21.1	38.6	40.3
Yugoslavia	25.0	36.0	39.0
Poland	29.9	39.7	30.4
Selected OECD countries			
Austria	8.0	37.0	55.1
France	6.4	30.1	63.5
Germany	3.7	39.8	56.5
Italy	9.3	32.4	58.2
Spain	13.0	32.9	54.0
Portugal	19.0	35.3	45.7
Sweden	3.6	29.5	67.0
United Kingdom	2.1	29.4	68.4
United States	2.9	26.7	70.5

Sources: Statistical Office of Armenia; Statistical Yearbook of Yugoslavia, various issues; OECD, Quarterly Labour Force Statistics, NO.4, 1990; IMF, IBRD, OECD, EBRD, The Economy of USSR, 1990; L. Riveros, Wage and Employment Policies in Czechoslovakia, PRHEE, World Bank, 1991, processed; C. Burda, Labor and Product Markets in Czechoslovakia and the ex-GDR: A Twin Study, INSEAD, 1991, processed; L. Fox, Labor Markets in Bulgaria: Policies, Institutions, and Results, EMHR, World Bank, 1991, processed; World Bank, Poland: Employment Promotion and Services for a Market Economy, 1990.

Notes: Agriculture comprises ISIC Major division 1: agriculture, hunting, forestry, and fishing; Industry comprises ISIC Major divisions 2-5: mining and quarrying; manufacturing; electricity, gas and water; and construction. Services comprise ISIC Major divisions 6-9 plus 0: wholesale and retail trade, restaurants and hotels; transport, storage and communications; financing, insurance, real estate and business services; community, social and personal-services; and activities not adequately-defined.

**Table 3: STRUCTURE OF EMPLOYMENT BY SECTOR
(percentage)**

	1980	1985	1990
Manufacturing and mining	30.2	29.9	31.8
Agriculture	22.0	20.3	18.2
Construction	8.6	8.6	11.2
Transportation and communications	6.9	6.9	5.6
Trade, catering and tourism	6.5	6.6	6.5
Crafts, housing, public utility	3.7	3.9	4.4
Financial services	0.7	0.8	0.9
Education and culture	15.1	15.1	16.4
Public health and social welfare	4.4	5.3	6.1
Administration	1.9	1.8	1.8

Source: Statistical Office of Armenia.

Non-existent part-time work. Due to rigid employment policies, virtually all employment is undertaken on the full-time basis. Even though legislation under the Soviet regime allowed part-time work, employers were encouraged to employ on a full-time basis. According to the estimate of the Ministry of Labor of Armenia, less than 0.5 percent of workers -- mainly retirees and those taking second jobs -- work part-time.

Pay egalitarianism and distorted interindustry wage structure. Drawing from the writings of Marx, socialist economies have allegedly pursued the principle "to everyone according to his work" by using the so-called tariff system. Under the tariff system, jobs were classified (based on such factors as required education, physical strain, and working conditions) into different skill grades -- the "skill-exertion matrices -- to which economywide wage rates were centrally assigned (they were modified by "regional coefficients" to account for differences in climate). To stimulate productivity, various bonus schemes were superimposed on base wages tying rewards either to individual productivity (piece rate) or to collective productivity (profit-sharing schemes).⁵

⁵ Wages are permitted to exceed centrally assigned wages in profitable industries and/or firms. On determination of wages in socialist economies, see, for example, Vodopivec (1991b).

Such wage determination produced two major negative effects. First, the pay structure was egalitarian, thus dampening work incentives. For example, the 1986 tariff rates called only for a 4.27 range between the highest and the lowest basic tariff rate. Second, sectoral structure of wages has been biased in favor of blue collar workers -- for example, workers in manufacturing are better paid than workers in education and culture (table 4).⁶ (Sectoral wage structure has been fairly stable since 1980 -- with the exception of public administration and particularly (the small) financial services sector, which improved their relative wages since 1986.)

Table 4: INTERINDUSTRY WAGE STRUCTURE 1/
(Percentage of the national average)

	1980	1986	1991 :
Armenia (roubles)	163	185	318
Manufacturing and mining	112	115	111
Agriculture	78	83	86
Construction	145	155	154
Transport	117	114	96
Communications	85	83	95
Trade, catering and tourism	80	72	67
Housing and public utilities	69	68	72
Financial services	94	95	199
Education and culture	84	79	76
Public health and social welfare	83	65	74
Administration	92	88	106

Source: Statistical Office of Armenia.

Notes:

1/ State sector only.

2/ Average of the first nine months.

Divergent trends of real earnings and productivity. The latter half of the 1980s witnessed a widening gap between productivity and real wages -- even though productivity was falling, real wages were growing, thereby changing the structure of final demand in favor of consumption (table 5).

⁶ Many of the industries with below-average wages have above-average proportions of female workers, e.g., education and culture and public health and social welfare.

Table 5: PRODUCTIVITY AND EARNINGS, 1980-1991 1/

	Productivity (1980=100)	Average nom. earnings (in roubles)	Average real earnings (1980=100) 2/
1980	100	161	100
1981	106	166	101
1982	107	170	100
1983	109	172	101
1984	113	176	104
1985	118	180	107
1986	118	185	108
1987	117	191	111
1988	113	199	115
1989	124 3/	254	146
1990	109	291	156
1991	98	380	105

Source: Statistical Office of Armenia.

Notes:

1/ Productivity relates to the so-called material sphere (social services are excluded). Earnings refer to the state and cooperative employment.

2/ Deflated by index of retail prices.

3/ Includes activities following the December 1988 earthquake.

While increasing up to 1985, productivity (measured as output per worker) has been falling since then (except in 1989, when there was an increase in economic activities following the December 1988 earthquake). In contrast, real earnings per worker steadily grew in the 1980s and in 1990, rising 56 percent above its 1980 level by 1990. (In 1991, productivity and real earnings decreased sharply, the former falling two percent below its 1980 level, and the latter to five percent above its 1980 level.)

Relatively high labor turnover and low geographical mobility. Due to a overheated labor demand in the circumstances of the soft budget constraint, labor turnover (job changing) rate in Armenia has been quite high, that is, comparable to that in most OECD countries (see table 6). Traditionally turnover in Armenia as in the rest of the former Soviet Union has been much higher in the blue collar occupations (workers as opposed to employees). In contrast, geographic mobility has

been notoriously low in socialist economies. The propiska system (see below) and the lack of a functioning housing market have been major impediments.

Table 6: LABOR TURNOVER, 1975-1989
(Annual number of separations per 100 employees)

	1975	1980	1985	1989
Armenia 1/	---	17.9	13.1	19.3
Socialist countries				
Yugoslavia	14.6	14.3	12.6	11.3
Poland	21.7	18.3	17.9	19.8
Hungary	---	---	---	24.4
Czechoslovakia	---	---	17.9	19.6
Bulgaria	---	---	---	21.0
Soviet Union 1/	---	---	---	21.2
OECD countries				
France	---	17	18 2/	---
Germany	25	30	---	---
Italy 1/	14	15	---	---
Japan	16	14	14 2/	---
Sweden 1/	21	20	17 2/	---
U.K. 1/	30	25	21 2/	---
U.S. 1/	50	48	---	---

Sources: Statistical Office of Armenia; Statistical Yearbook of Yugoslavia; Statistical Yearbook of Czechoslovakia; Statistical Yearbook of Poland; Statistical Yearbook of Hungary; World Bank, Bulgaria: Crises and Transition to a Market Economy (Report No. 9046-BU, 1991 L), 1991; IMF, World Bank, OECD, EBRD, A Study of the Soviet Economy, 1991; OECD, Flexibility in the Labor Market (The Current Debate), 1986.

Notes:

1/ Manufacturing only.

2/ 1984.

High female labor force participation. While the male labor force participation rate in Armenia has been comparable to that in most OECD countries, the female participation rate has been much higher. In 1989, the female participation rate was 78.2 percent, similar to that in Scandinavia and Eastern European countries (except Yugoslavia), and higher than in the Soviet Union (table 7).

**Table 7: COMPARISON OF LABOR FORCE PARTICIPATION RATES, 1989
(percentage)**

	Total	Women	Men
Armenia	82.3	78.2	86.5
Socialist economies			
Czechoslovakia	87.3	84.6	89.8
Poland	80.2	77.2	82.9
Romania	84.2	80.6	87.3
Soviet Union	78.0	72.0	84.0
Yugoslavia	64.5	55.6	73.3
Selected OECD countries			
Austria	67.2	54.3	80.4
France	65.6	55.7	75.4
Germany	68.2	54.5	82.8
Greece	59.8	43.4	75.6
Italy	60.7	44.0	77.8
Japan	73.4	59.3	87.2
Spain	58.6	39.9	77.4
Sweden	83.3	81.0	85.6
United Kingdom	76.0	65.2	86.8
United States	76.8	67.9	85.9

Sources: Table 1; OECD Employment Outlook, OECD, Paris, July 1990; IMF, IBRD, OECD, and EBRD, The Economy of USSR, 1990; Statistical Yearbook of Czechoslovakia, 1990; Statistical Yearbook of Poland, 1990; World Bank, Romania: Accelerating the Transition: Human Resource Strategies for the 1990s (Report No. 9577-RO), May 1991; World Bank, Yugoslavia: The Labor Market and the System of Cash Benefits (Report No. 9607-YU), July 1991.

Notes: Participation rate is defined as the percentage of the labor force in the population of working age. The latter refers to age 15-64, except for Armenia (16-59); for Yugoslavia (15-59 for women, 15-64 for men); Czechoslovakia (15-55 for women, 15-60 men); Poland (18-59 women, 18-64 men), and Romania (16-55 for women, 16-59 for men). Because of the differences in the definition of working age population, participation rates for socialist countries tend to be biased upward. For France, Germany, and Greece, women's and men's participation rates refer to 1988.

Well-educated labor force. Like the labor forces of the Eastern European economies, the Armenian labor force exhibits a high level of formal education (table 8). The educational attainment average of 11.3 years is only slightly less than the highest ranked socialist economy, Czechoslovakia (11.5 years), and is even above the average for the developed market economies (10 years). Of course, it is a more difficult matter to assess how functional the present skills of Armenian labor force are, particularly for meeting the needs of the forthcoming transition to a market economy.

Table 8: EDUCATIONAL COMPOSITION OF THE LABOR FORCE

	Percentage of the labor force with				Mean years of schooling
	No education	Primary education (completed or uncompleted)	Secondary education (completed or uncompleted)	Higher education	
Armenia (1989)	1.0	56.2	23.6	19.2	11.3
Socialist countries-average	2.2	39.4	52.4	5.9	9.5
Yugoslavia (1981)	7.4	52.5	35.9	4.2	5.6
Bulgaria (1975)	4.0	67.6	22.5	5.9	8.7
Czechoslovakia (1980)	0.0	37.5	55.7	6.8	11.5
Hungary (1980)	0.7	28.2	62.7	8.4	10.4
Poland (1978)	1.3	8.6	84.7	5.4	10.7
Romania (1977)	0.0	42.1	53.0	4.9	9.8
Developed market countries	0.4	27.1	56.1	16.3	10.0
Southern European countries	12.5	59.1	20.6	7.8	5.9
Middle East and North Africa	50.2	29.8	15.9	3.6	3.4
East Asia and the Pacific	16.1	45.0	33.6	5.8	6.4

Sources: Statistical Office of Armenia; G. Psacharopoulos and A.M. Arriagada, The Educational Composition of Labor Force: An International Comparison, International Labour Review, Vol. 125, No.5, 1986.

Notes: The data refer to formal education. Armenia's unusually high percentage of workers with higher education is at least partly attributable to differences in the system of education -- in Armenia, only 15 years of schooling is required for a higher school degree. In the group of developed market economies are: Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Japan, Netherlands, New Zealand, Norway, Switzerland, and United States (their data are from 1975-82). In the group of Southern European countries are Greece, Portugal, Spain, and Turkey (their data are from 1980-1). In the group of Middle and North Africa countries are Afghanistan, Algeria, Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Morocco, Qatar, Syria, Tunisia, United Arab Emirates, and Yemen (their data are from 1970-81). In the East Asia and the Pacific countries are China, Taiwan, Fiji, Hong kong, Indonesia, Korea, Malaysia, New Caledonia, Philippines, Singapore, Thailand, and Tonga (their data are from 1974-83).

Moderation of the population growth. Due to a decreasing trend in fertility and increasing trend in mortality (the latter particularly since 1989 -- not counting the earthquake year 1988), population growth has been slowing down since 1984 (table 9). While population growth exceeds that of the northern republics of the former Soviet Union (FSU), it is considerably lower than in the muslim republics of the FSU.

Table 9: DEMOGRAPHIC INDICATORS

	Population (thousands)	Natural growth rate (per 1000)	Fertility (per 1000)	Mortality (per 1000)
1950	1347	23.6	32.1	8.5
1961	1905	30.8	37.2	6.4
1971	2548	17.7	22.6	4.9
1980	3074	17.2	22.7	5.5
1981	3119	18.1	23.4	5.3
1982	3169	17.7	23.2	5.5
1983	3218	17.9	23.6	5.7
1984	3267	18.4	24.2	5.8
1985	3317	18.2	24.1	5.9
1986	3362	18.3	24.0	5.7
1987	3412	17.2	22.9	5.7
1988	3457	11.3	21.6	10.3 1/
1989	3449	15.6	21.6	6.0
1990	3515	16.3	22.5	6.2
1991 2/	3575	15.2	21.6	6.4

Source: Statistical Office of Armenia.

Notes:

1/ An increase in mortality is due to the December 1988 earthquake.

2/ Preliminary data.

Net inflow of immigrants. Starting with February 1988, as a result of a political conflict with the neighboring Azerbaijan, there has been a continual inflow of Armenians from Azerbaijan, and an outflow of Azerbaijanis from Armenia. In total, it is estimated that about 250,000 Armenians immigrated from Azerbaijan, and that about 170,000 of Azerbaijanis emigrated from Armenia. In 1991, the corresponding numbers are 32,000 and 600, indicating that the migration flows have slowed down.

Recent Trends: the Beginning of Labor Reallocation

While some of the labor reallocation during the transition may take place smoothly – that is, as voluntary job changing that does not result in unemployment, reallocation in the present crisis is bound to call for extensive lay-offs and lead to massive unemployment. That has not yet happened.

Although enterprises reduced employment in 1992, it appears to have occurred primarily through the less painful shedding of pensioners, while being quite reluctant to lay off other workers.⁷

Faced with a difficult economic situation, Armenian enterprises adjusted their demand for labor in two ways. First, they have cut back their workforces. Compared to the last quarter of 1991, at the end of the first quarter of 1992 the state sector (outside agriculture) reduced the number of employees by 106,000 (or 9.4 percent).⁸ The majority of the jobs (60,000) were cut in the so-called non-material sphere (education and culture, and public health), and 46,000 jobs were cut in the so-called material sphere (among the latter, manufacturing and construction both shed 15,000 workers, and trade and catering 11,000 workers). Second, as in many other FSU economies, enterprises have allowed workers to retain their jobs, but forced them to take leave while receiving pay amounting to only two thirds of their base pay -- 336,000 workers were on such forced leave during November 1991 and March 1992.⁹ (In parallel with these employment adjustments, there has been a widening of wage differentials. In one of the enterprises visited by the World Bank mission in April 1992, for example, the coefficient of variation of wages for a selected group of 39 workers increased from 0.4 in April 1991 to .5 in April 1992.)

In the two months after unemployment benefits were introduced in March 1992, employment offices registered 11,775 job seekers. About 2000 of them were laid off, 1500 were first-time job seekers, over 5000 were labor market reentrants, and over 3,000 had quit their jobs. By the end of April 1992, 6105 of job seekers qualified for unemployment compensation, and 65 of them were also enrolled in training. (Updating labor market trends with recent developments is not fruitful, since these trends are atypical. Namely, the economic crisis produced by the economic blockade has severely deepened since the second half of 1992. Although, unfortunately, the phenomenon of the

⁷ At the end of 1991, 150,000 pensioners (out of 580,000) were working.

⁸ There was also a 38 thousand cutback in state agricultural employment, but that predominantly reflected ownership transformation, that is, the drop in state employment was matched by an increase in private employment in agriculture.

⁹ Armenian employers have undoubtedly utilized a variety of job sharing arrangements including full leave for entire months and rotating leave for selected shorter periods.

"economy under the siege" may not be that uncommon in the era of the postsocialist transition, it is beyond the scope of this investigation.)

2. Current Labor Market Policies and Practices

Under central planning, the labor market was characterized by numerous rigidities. The chief ones were: job security; administrative job assignments and informal pressures to hire; the obligation to work; non-existence of legal private sector; rigid working hours; constrained geographic mobility; and centrally imposed, egalitarian wage structure.

These labor market rigidities produced two types of inefficiencies. First, labor allocation was inefficient because (1) both hiring and dismissal were divorced from economic criteria, (2) labor turnover was not necessarily enhancing efficiency, due to a wedge between the wage and the marginal value product created by employment subsidies, and (3) internal labor markets were ineffective, because of ideological criteria in hiring and career advancement. Second, job security negatively affected work incentives – directly, through the absence of the stick in the form of the threat of dismissal, and indirectly, through the weakening of profit-sharing as a device for boosting motivation (Vodopivec 1991b).

Current legislation addresses many of the above rigidities. In particular, the new Employment Law (accepted in February 1992) calls for flexible redundancy regulation, introduces unemployment benefits, and removes any constraints on enterprises' wage bills. In another significant development, non-state employment has been acknowledged and encouraged by other laws.

Employment legislation. Similar to other FSU economies, the new Employment Law brought several radical changes. Above all, it frees enterprises from direct employment controls by the state. It explicitly allows the citizenry to choose between labor force participation and non-participation (in the Soviet era, the so-called anti-parasite laws called for administrative sentencing of labor force non-participants to compulsory work), and between different types of enterprises (previously, legislation was heavily biased against employment in the private sector). Possibilities for fixed-term employment are also broadened.

But the Law still smacks of the old interventionism in some areas. For example, it still constrains geographic mobility through the "propiska" system. It defines the "appropriate job" (podhodyashchaya rabota), among others, by the distance from the permanent residence (propiska) of the worker; in Armenia, a distance not to exceed 60-70 km. Since a worker may only be employed in an "appropriate job," this precludes many rural residents from taking jobs in, and moving to, the cities (above all, Yerevan). Moreover, the law stipulates that the government guarantees work for some groups of workers (single mothers, one of the spouses if both are unemployed, handicapped, and released prisoners and persons cured of alcoholism and drug abuse). This guarantee is achieved by assigning such workers to both state and other enterprises (the number of assigned workers cannot exceed five percent of the work force per year). If enterprises do not want to accept these workers, they must pay a fine equivalent to the yearly pay of the refused workers.

Redundancy legislation. The Employment Law stipulates that the employer has to give two months of advance notice to workers to be dismissed (as in many other economies of FSU), and make a severance payment of one month's wage to the worker and the same amount to the Employment Fund. In a mass lay-off (defined as the one exceeding five percent of the workforce), the employer also has to give two-month notification to the Employment Office, and explain the reasons for the lay-off. Furthermore, the local Employment office may delay a lay-off for one month, if it finds difficulties in placing the workers to be laid off (the employer may be partly compensated by the Employment Fund for such delays).

Unemployment benefits. These benefits, together with the notion of unemployment, were previously non-existent in Armenia (the Soviet Employment Law from 1988 which also allowed for unemployment benefits was not implemented). The definition of unemployment is a person who does not have a job, is searching for a job, and has not turned down more than one appropriate job offered by the Employment office. An appropriate job is one with an educational requirement (qualification) that matches the person's educational attainment. Besides unemployment compensation, unemployment-related benefits include training (period of which is counted toward pension), training allowance (paid at the same rate as unemployment benefits), and -- irrespective of receiving

unemployment compensation — means-tested unemployment assistance. Unemployment insurance benefits are financed by one percent tax on employer payrolls.

Unemployment compensation cash benefits can not be less than the minimum wage; for the laid off workers, it amounts to 75 percent of their past (unindexed) earnings, for the first eight weeks, and to 50 percent for additional 24 weeks (each five years of seniority above fifteen brings additional two weeks of the entitlement). For those unemployed for reasons other than layoff, unemployment compensation is 50 percent of their past wage, paid for 12 weeks (provided that they have been employed for at least 12 weeks in the last year). Finally, first-time job seekers are entitled to the compensation equal to the minimum wage, for 12 weeks. The past wage is measured as the monthly wage at the time of the layoff. (The duration of eligibility to unemployment compensation in other FSU economies is similar; some of them, however, have introduced flat-rate benefits — Latvia and Estonia, for example).

Wage determination. In contrast to wage setting during the Soviet period, enterprises now have wide latitude in setting wages. The former basis for wage setting, the skill-exertion matrix, is to be abolished. The government is preparing a new basic wage structure — having a total range of wages of 1:15 across fifteen major skill categories — to be applied to government workers, and also to be recommended for state and other enterprises. This range is to serve as a basic starting point for enterprise-level wage determination. In practice wage payments will be supplemented and modified by factors such as skill shortages and profitability at both the industry and enterprise levels.

Current regulations have removed tax-based incomes policy introduced in 1987 (setting a ceiling on the annual increase of the wage bill of enterprises), and thus even state enterprises can freely set their wage bills. While desirable from the standpoint of setting interfirm and interoccupational pay differentials, the freeing of wages has unfortunate macro-inflationary implications that are discussed below.

Institutional Support and Labor Market Programs

Employment offices. Currently, there are 41 employment offices in Armenia: four in the largest four cities, and one in each of the 37 "rayons" (local jurisdictions), with total staff of 451. So

far, employment services have only been providing placement and information on job vacancies. With the increase of the scope of their services (to include counseling, administration of unemployment services, and training), as well as in the number of their clients, effectiveness will be constrained by a lack of staff and resources. Moreover, many of the current practices of the employment services regarding information exchange, placement and job counseling will have to be overhauled to provide services appropriate for a market economy.

Training. The transition to a market economy will produce many displaced workers while generating demand for skills currently in short supply, both of which will create large demand for training, retraining, and skills upgrading. The current capacity of training institutions to accept unemployed workers is substantial. As elsewhere in the former Soviet Union, there are two types of schools that would be suitable for training of the unemployed. First, there are professional schools (the so called PTUs); presently 80 in number, which can train about 15,000 persons per year. The second type of schools are training centers which are currently used for training employed workers (they are run directly with various ministries, or with large enterprises). These centers could train up to 15,000 trainees per year for blue collar jobs (in 23 training centers), and up to 10,000 per year for white collar workers (in 16 training centers).¹⁰ But to provide effective retraining for the unemployed, current training capacities have to be re-oriented toward the emerging skills needed in a market economy, and training techniques adjusted to suit experienced workers.

Public works. Current labor legislation does not foresee public works and/or public service employment programs as major elements of active labor market policy. Such programs, however, are presently carried out under a special presidential decree, but are kept at a rather modest level, i.e., 3,000 participants in 1991. (In some other FSU economies -- for example, in Ukraine -- public works have been introduced by law.)

3. Issues and Options

The primary goal of labor market policies during the transition must be to facilitate the needed adjustment both by encouraging the efficient reallocation of labor and spreading the costs

¹⁰ Respectively these can be described as providing qualification training and retraining.

equitably among the different segments of population. In doing that, the transitional economies are facing many difficult dilemmas.

The pace of labor reallocation. This is fundamental, but complex question. Should firms' plummeting production (obviously, a must during the initial phase of the transition) be accompanied, and to what extent, by plummeting employment? That is – should one advise a rapid increase in unemployment, and hence high unemployment rates in short- (and possibly mid-) term?

The main task for policy makers – and perhaps the most challenging one – is to preserve jobs that are economically meaningful and simultaneously to stimulate labor shedding in those industries and in those enterprises that suffer from hidden unemployment, or are economically non-viable.¹¹ Obviously, there are costs and benefits associated with both extreme scenarios, with no clear-cut theoretical answer.¹² On the one hand, perpetuation of the status quo does not expose workers to the costs of unemployment (for example, dissipation of human capital, psychic costs, deterioration of health) – but it forgoes (slows down) the reallocation of workers to more productive uses. On the other hand, fast shedding of workers contributes to the fast redeployment of labor in more productive uses, but it can only occur with significant adjustment costs (the ones mentioned above, plus costs of services provided to unemployed, plus output forgone due to increased taxation to support the unemployed) – at least initially, these costs probably increase more-than-proportionally with the speed of transition.

¹¹ For Armenia this task is particularly difficult, due to a conflicting solutions to two of the pressing problems of the Armenian labor market (Macedonia is another example). On the one hand, there is a structural problem of hidden unemployment, the solution to which requires labor shedding; on the other hand, there is a temporary problem of insufficient supply of energy and inputs due to the economic blockade, the solution to which requires preserving employment. As long as the blockade persists, jobsharing arrangements can be helpful in preserving jobs without the necessity of maintaining full time work schedules for all workers. Job sharing can be accomplished through working part week schedules and/or through rotating layoffs, both of which preserve job attachments for workers.

¹² Few theoretical insights have been generated so far. One of the most interesting is Gavin (1993), whose dynamic control model shows that the "shock-therapy" approach to economic reform may generate an excessive adjustment and thus excessively high rate of unemployment during the transition (his results, however, hinge heavily on the assumption that the gross flow out of unemployment is less-than-proportionally increasing in the number of unemployed).

Although layoffs are unappealing and painful, costs associated with the perpetuation of the status quo are often much higher. A radical break with the tradition of virtually unlimited job security is called for. The government must, therefore, encourage firms to shed surplus labor by redundancy legislation that would not impose undue costs on firms, as well as shut down and liquidate firms with the poorest prospects and performance. To avoid jeopardizing the sustainability of reforms, however, the government should try to build support for the reforms. Possible options are (1) establishing a National Conciliation Council (with a tripartite structure -- the government, trade unions and employers) to discuss future policies and legislation, (2) launching of a public relations - public information campaign to demonstrate unavoidability of the reforms (as a price to be paid for the long-lasting wrong policies of the past), as well as to counterbalance the perceived negative developments (increased unemployment) by emphasizing successes (such as people obtaining regular employment after finishing training or public employment programs), and (3) introducing strong active labor market policies (see below).

During the initial period of the transition, there seems to be scope for some temporary, palliative measures: reduction of working time, work-sharing, subcontracting of workers to other enterprises, with the wage bill rather than the size of employment taking the brunt of adjustment. Although such a workforce adjustment has been found to hinder closing of the least efficient plants in Western Europe (Houseman 1988), it may prove a desirable way of workforce adjustment in the initial period of the transition. Above all, adjustment costs are spread equitably across the workforce. But such an adjustment may also be defended from the efficiency standpoint -- it may soften the shock of transition by preparing workers psychologically for possible future layoffs, and induce some workers to quit. Moreover, at the beginning of transition, the absorptive capacity of the private sector, as well as effectiveness of training institutions is likely to be limited, increasing the chances of long spells of unemployment.

Some protective measures of the Armenian government, however, seem to be counterproductive. For example, the government may want to reconsider current job guarantees for certain categories of workers (see employment legislation above). The program is laudable from a humanitarian point of view and similar to programs present in many advanced market economies.

But it is less defensible given Armenia's present circumstances of deficient labor demand and the need to transform the environment of the workplace to achieve higher productivity. As the experience of successful, socially-conscious countries (for example, Western European ones) shows, government must help certain groups of the population (for example, the poor and disabled). Such a help, however, need not consist of job assignments when there are alternatives such as income support payments (social assistance) and investment in training and re-habilitation (particular attention should be paid to invalids, due to their abnormally large numbers in the labor force as the consequence of the 1988 earthquake).

Another protective measure with likely negative consequences is the grant of authority to Employment offices to delay mass layoffs when they judge it difficult to place redundant workers (see above on redundancy legislation). Such government interference in layoffs could inhibit the transition to the market economy. The advance notice requirement and the authorization to delay mass layoffs for one month per se do not represent major threats, but could provide a statutory basis for administrative interference in the transition. Repeated use of such authority could prevent needed adjustments if enterprise perceive that they will not be supported in their efforts to restructure the workplace. Furthermore, if interventions in layoffs are anticipated it could lead to rent-seeking behavior on the part of enterprises, as well as require complex analyses to determine what losses, if any, were imposed by the delay of the layoffs.

Early retirement is also an option, but it must be used cautiously not to jeopardize the sustainability of pension programs.¹³ Mitchell (1992) advocates actuarially reduced benefits for early retirement. She also argues that "retirement systems are not well-suited to solve unemployment problems," and thus advises against government sponsored early retirement programs. In particular, she finds that generous early retirement programs not only raise fiscal burden of current and future workers, thereby reducing labor demand, but also fail to improve demand for young workers

¹³ The danger is that the ratio of retirees to employees increases dramatically; for example, in Slovenia (where the government offered generous subsidies to encourage early retirement), the ratio increased from 1:2.6 to 1:2 in just two years (December 1989 - December 1991); see Vodopivec and Hribar-Milic (1992).

(especially if low substitution between old and young workers, as seems to be the case).¹⁴

Moreover, decreased labor force participation due to early retirement decreases the level of unemployment and hence its importance in disciplining workers.

Wage Setting.

The old system of wage setting has been demolished, and it seems that a new, well-functioning system is still only a remote goal (in Armenia, as well as in other FSU countries). The situation is exacerbated by the conflict between the macro and micro aspects of wage policy, particularly obvious during the transition. There is a clear need to inhibit the aggregate increase in money wage bill to be consistent with macroeconomic needs, i.e., to prevent the labor market from being a source of inflationary impulses. At the same time, the structure of relative wages should be free to adjust to provide ongoing signals of supply-demand imbalances in the labor market. Balancing these considerations will represent a continuing challenge as the transition proceeds.

What kind of incomes policy? In deciding about the total wage bill of enterprises, the pendulum has swung too far in the other direction -- toward a complete freedom, even for state enterprises. Based on the experience in Eastern Europe, however, a consensus has emerged among economists that while state ownership prevails, an incomes policy is necessary.¹⁵ In the existing highly monopolistic markets, and until financial discipline is strengthened (budget constraint tightened), state enterprises may -- in the absence of any constraints on wage payments -- increase their wages well above increases in productivity, thereby contributing to inflationary pressures.

As for the choice of an incomes policy, many opt for a tax-based one.¹⁶ But should such

¹⁴ Laczko and Phillipson (1991) also report that employers felt restricted by being forced to substitute retirees with unemployed school leavers in the government sponsored "Job Release Programs" in the UK and France. Due to redefining workers as early retirees, such programs only cosmetically reduced unemployment; and it remains unclear whether these programs spurred substitution of old by young workers.

¹⁵ See, for example, Coricelli and Revenga (1992).

¹⁶ There is one disturbing argument against tax-based incomes policy, though. The prevalence of state ownership not only creates a danger of the wage drift, but also jeopardizes the effectiveness of the tax-based incomes policy: if a firm can "borrow" to pay excess wages, it may also be in a position to borrow even more to pay excess wages *and* taxes imposed on such wage increases. If sufficient hardening of budget constraints can not be implemented,

policies (through the choice of the tax base) take account of enterprise productivity? Some argue that enterprise productivity increases should not be connected to the wage growth (the externality argument of Layard (1990));¹⁷ inflationary pressures, particularly under the monopolistic market structure that prevails in transition economies). But remembering the positive effects of profit-sharing in market economies, both on the macro level (less layoffs – see, e.g., Weitzman 1984) and micro level (improved productivity – Elinder 1990), it is also possible that linking wages to enterprise productivity would contribute to wage- instead of employment adjustment, as well as stimulate productivity. It thus seems that wage-productivity link is desirable on microeconomic ground (improved productivity), but less so on macroeconomic ground (increased inflationary pressure). (A related problem associated with the average wage as the tax base is the bias against highly skilled industries and firms introduced through such a tax.)

What kind of collective bargaining? Although collective bargaining in FSU is still in a rudimentary stage of development, unions are expected to participate actively in wage determination in the longer run.¹⁸ However, there is no tradition of labor-management negotiations in Armenia. As noted, the largest union confederation is a direct carryover (including leadership) from the former Soviet period. Initially, the management side of collective bargaining also will be inexperienced. A structural framework (both the formal and informal structure) for wage bargaining also will need to be established.

agreeing to general wage increases through encompassing bargaining would be a more desirable solution – but, unfortunately, often not a practical one.

¹⁷ But Layard notes that productivity growth he has in mind is associated mainly with technological progress (that is, it is given exogenously); in transitional economies, on contrary, productivity growth can be produced by increasing effort, and decreasing organizational slack in general (that is, productivity growth depends on the reward system).

¹⁸ Presently, there are two trade unions in Armenia: besides the old, "official" trade unions – whose leadership is still virtually unchanged from the Soviet times – there is also a new trade union "Miabanutun" (in translation "Spiritual Unity"); the two formed a loose confederation. Miabanutun is much smaller; it has 35,000 members, mostly from technical intelligentsia, while the rest of the workers are members of the old trade unions. (As under the Soviet Union, virtually all workers are members of one of the trade unions.)

In the long run, small, open, highly unionized economies should try to steer the collective bargaining in the direction of encompassing bargaining, thus rendering incomes policies unnecessary. Such a system (practiced, for example, in Sweden, Norway, Austria, and Germany), characterized by wide-spread coverage and highly centralized bargaining, enables that the benefits from wage moderation can be shared mutually by all participants of the collective bargaining process (Layard 1990).

Guidance for setting intra-firm wage differentials? As mentioned above, government wants to apply the basic wage scale developed for the civil service also outside government. But applying such a scale -- even only as a recommendation -- to state enterprises, let alone private ones, would be counterproductive. The scale will raise expectations both on the part of workers and employers, and thus distort relative wages and inhibit dynamic adjustments in the wage structure. Possible effects include reduced mobility of labor, inhibition of employment, and the reduction of overall productivity (the latter caused by the lowered morale of the more productive workers, if the regulations tilt the distribution toward egalitarianism). To assure minimum income for workers, however, the government should set and maintain the minimum wage slightly above the poverty line, and adjust minimum wage in the future by discretionary action.

What kind of fringe benefits? The present system offers many types of fringe benefits. Workers are entitled to pension, disability, paid vacation, and paid maternity and sick leave. These are normal social insurance benefits in a market economy. In Armenia, as elsewhere in the former Soviet Union, these benefits are widely available and payment levels are quite generous. Ready availability of these benefits generates disincentives to work.

Additionally other types of fringe benefits are also provided which are typically not found in a market economy. These are financed from the so-called social development funds of the enterprises and are provided "in kind." They include provision of housing, payment of mortgage and consumer credits, obtaining lots for building a "dacha," paid excursions and traveling, and free meals.

These benefits introduce inefficiency into wage setting. First, enterprises may prefer in-kind benefits because they are taxed less than the wage fund. Once the tax status is equalized, workers are likely to prefer cash payments. Second, many of the in-kind benefits are provided to workers in the

same quantities. Due to different tastes, many workers would prefer cash payments and the freedom to decide for themselves what to buy.

Reform of fringe benefit availability should receive attention. Among the gains to be realized are reduced labor costs for enterprises, improved labor supply incentives for workers and budgetary savings. Directions for change to be considered could include the following; cashing out in-kind benefits financed from the social development funds, reduced availability of disability and retirement pensions, shorter periods of paid maternity leave, and more active monitoring of sick leave usage.

In a macroeconomic environment of substantial inflation, the relative attractiveness of work could be improved by adjusting fringe benefit payment levels less than the rate of money wage inflation. Of course, care should be taken to maintain living standards of the poorest recipients of cash and in-kind benefits.

Geographic mobility. Not only is the present system of internal passports extremely unjust, it is also inefficient -- it precludes selection from the larger pool of candidates and thus hinders competition. Another, longer-term task of the government is therefore fostering geographic mobility of labor by removing the "propiska" considerations from the criteria for job eligibility and provision of medical services. To prevent undue strain upon the cities, a gradual approach seems called for. Government may want to consider such a move in conjunction with privatization of housing, which will improve the efficiency of the housing market. Moreover, to enhance mobility of labor, the provision of some fringe benefits (for example, housing) should not be linked to employment.

Unemployment benefit. Both the replacement ratio and duration of benefits seem to fit Armenia from a budgetary standpoint (with the caveat that the first two month replacement ratio for those on layoff could also be 50 percent). But current unemployment compensation is inconsistent in two ways, both of which jeopardize the affordability of the system. First, because the current law differentiates among workers on the basis of their reason for unemployment (laid off workers are treated more favorably than others) the potential for "gaming" and disincentives must be recognized. Care must be taken to ensure that workers claiming to be on layoff have not quit their previous jobs. Also, the longer potential duration for those on layoff should be monitored for evidence of active job search. Second, the system unduly extends unemployment compensation to first time job-seekers,

and unemployment assistance to family members of the unemployed. Because typically the eligibility basis for unemployment compensation is past employment, those with no employment record should not be entitled to unemployment compensation.

The current system with employment offices in all areas could function as a social assistance program. In the short term -- until a comprehensive social assistance program is introduced -- this may be appropriate. In the longer term, however, only workers with substantial work histories should be eligible for unemployment compensation. Applying this principle to Armenia means that (a) first-time job seekers and labor market re-entrants should not be offered unemployment compensation, nor should the basis of eligibility be employment training; and (b) job quitters, on the other hand, should be eligible for unemployment compensation (but only after they undergo a prolonged disqualification spell to discourage quitting in order to collect benefits).

In the long run, unemployment compensation should be earnings related, i.e., higher past earnings yielding higher monthly benefits. To facilitate the administration of an earnings-related benefit, development of automated reporting of worker earnings is needed. This will greatly increase the capacity of the Employment offices to serve large numbers of unemployed and make accurate determinations of benefit levels. In the present environment of low utilization of productive capacity and high inflation, however, paying a benefits at a single (or flat) rate to eligible workers has advantages both from an administrative perspective and to effect budgetary savings.

Employment services. To ensure effective re-employment programs for the increased number of unemployed, the government should increase the resources available for employment services. Employment offices should simplify and streamline the registration procedures for unemployed (among others, by letting applicants to fill registration forms, and advising them about vacancies before registering them, so as to avoid unnecessary registrations); and computerize and inter-connect their information systems (particularly micro information on the unemployed, their previous earnings (for computing benefits and stipends) and information on job vacancies). To increase employment office efficiency approaches based on self- or group- service should be developed. More attention should be paid to job counseling, both regarding demand prospects for possible occupational choices as well the assessment of personal skills and interests.

The optimal mix of labor market policies. Transitional economies are faced with a difficult dilemma of how much resources to devote to income support versus active policies (indeed, the practice in OECD countries is very diverse), as well as the appropriate mix of active policies during the transition (training vs. job search assistance vs. wage subsidies vs. public employment programs vs. public works). What works and what does not work, in economies so vastly different from anything we have been dealing with before, is a very difficult question. The experience of developed economies is of limited value and research on transition economies themselves is badly needed.¹⁹ Moreover, active labor market policies have to be weighed against alternative policies aimed at reduction of unemployed – notably increased public expenditures and investment tax credits (see Garfinkel and Palmer 1978).

Training. To provide effective retraining for the unemployed, current training capacities have to be re-oriented toward the emerging skills needed in a market economy. This includes adapting the a choice of courses offered as well as adjusting training techniques to suit the adults. Such training may include modular training; small-business programs for different groups of clients (focusing on setting-up small businesses, as well as on their organization, marketing, and financing); training and retraining of older workers; and training for re-settling refugees and displaced workers. It must be remembered, however, that in a labor market with deficient aggregate demand, the size of the displacement effects associated with placing trainees is large, emphasizing the simultaneous need to increase the total number of job openings.

But governments in transitional economies face difficult decisions regarding training. It is not only unclear how important the training component in the active labor market programs should be, there are many other unanswered questions related to training. For example, should training be provided by private or public institutions? Should it be targeted on specific groups, and, if so, on which ones? Moreover, what is the appropriate mix of qualification training versus retraining versus skill upgrading? What can we learn from the experience of developed countries? Summarizing

¹⁹ The research on Slovenia – currently under way – will be useful in this respect, providing guidance and evidence, among others, on (dis)incentives of unemployment insurance; the usefulness of grants to unemployed to spur self-employment; and the effects of hiring subsidies (see Abraham and Vodopivec 1991).

American experience, for example, Leigh (1990) finds workers under age 45, and women, as benefiting more than others from training, while Hollister and Haveman (1989) single out those with the least previous labor market experience, women, and disadvantaged as the group for which training was the most effective. As for the type of training, Hollister and Haveman find on-the-job training, and Leigh job search assistance especially effective.

Wage subsidies. While the limitation on the private sector seems natural, there are numerous other considerations that have to be taken into account regarding wage subsidies in the FSU countries. Chief among them are the following:

- **Targeting.** As Mangum et al (1992) claim, targeting helps raising employment of targeted groups, but it may have fewer positive net effects, because employers may substitute targeted for non-targeted labor, and stigmatize the targeted group. Instead of targeting, Hamermesh (1978) thus advocates a general wage subsidy (he also proposes a fixed amount subsidy, to favor low-skilled labor, for each worker day increase in net employment).
- **Hiring vs. employment subsidies.** Should subsidies apply to the stock of employment (subsidization of a worker during the entire time of employment) or flow into employment (subsidization of a worker during initial period of employment)?
- **Marginality.** Should subsidies apply to all new hires, all only to increased hires beyond the base level of employment)?
- **Nationwide vs. regional subsidies.** Regional subsidies may reduce migration from the affected regions, which tends to decrease their efficiency in alleviating regional unemployment.

To achieve the diverse goals transitional economies are likely to pursue during the transition, a combination of the above types of subsidies may be appropriate, perhaps a mix of targeted hiring subsidies (for youth, disadvantaged) and general marginal subsidies (possibly more generous in depressed areas, to stem migration).

Public works and public service employment. Armenia is likely to experience deficient labor demand for at least the next few years. During this period several temporary employment projects could be identified that would both provide useful services while employing persons who would

otherwise be unemployed. The temporary projects could be explicitly countercyclical and/or targeted on specific geographic areas (such as the earthquake zone). Two generic types of public employment projects can be identified; public works and public service employment. The distinction between the two is somewhat arbitrary but public works generally entail the use of substantial capital and material inputs as well as labor to produce identifiable products such as roads and buildings. Public service employment is usually viewed as producing services from processes where labor is the practically the only input.

In a labor market characterized by excess labor supply which can be anticipated at least through 1994, expanding the scope of public employment programs could yield positive benefits. At present there is a clear need for public infrastructure (highways), new residential construction (particularly in the earthquake zone), and building repair (both residential and commercial). Numerous persons previously employed in construction facing the short run prospect (or actuality) of unemployment could provide the workforce for such public works.

Also, to assist workers particular difficulties in finding jobs, government may want to directly create jobs through public service employment programs (in areas such as assistance to the elderly, child care, and environmental clean-up). To maximize the positive effects on employment, such programs should use labor intensive techniques and pay wages only slightly above the minimum wage.

Several considerations should be kept in mind to assure effectiveness of temporary job creation projects. There is a need to first identify the highest priority projects and then to marshal the associated capital and entrepreneurial resources to make these projects most successful. Reliance on labor intensive approaches is appropriate. Also, wage payments to participants should be restricted to modest levels.

In an environment of deficient employment demand, other elements of active labor market policy such as training and job placement services face the problem of high displacement rates, i.e., a high proportion of those placed take jobs that otherwise would have been secured by others. To make these other labor market programs more successful, it is important to increase the total number of new job openings (even if the jobs are temporary). Although total budget expenditures are increased,

the net increase in the budget deficit must recognize savings in unemployment insurance payments and other cash benefits and increases in total tax receipts associated with temporary jobs.

Some of the standard criticisms of temporary employment programs may not apply to the current situation in Armenia. Timing of start-up and phase-down is not a problem because full employment is not likely to be reestablished in the near term. Identifying priority geographic areas is eased by the existence of two large urban areas in the zone of the 1988 earthquake. Housing construction in this zone would have very high social benefits. Constructing highway and rail links to the outside thus reducing the isolation of the country from foreign energy sources would also have very high returns.

Questions, of course, can be raised as to the desirability of these types of programs versus, say, wage subsidies. Care should be taken to ensure that projects are temporary so that they self liquidate as the economy returns to full employment. Participation should be secured through financial incentives not mandatory requirements, e.g., pay should exceed the level of the unemployment compensation cash benefit but not fully match wages in the competitive labor market. Also care should be taken to avoid displacement effects, i.e., the projects should not merely replace existing public projects. Finally, selecting priorities for such projects would need to be carefully done to conserve on limited budgetary resources. The simultaneous existence of public needs and unemployed labor resources provide the conditions for successful efforts in this area.

Grants for self-employment. One program that may be promising is lump-sum payment of unemployment benefits conditional on starting-up a business. To date a limited number of evaluations of such programs have been undertaken. The Report of the Secretary of Labor's Task Force on Economic Adjustment and Worker Dislocation (U.S. Department of Labor 1986) places great hopes in such a program. Preliminary evidence from evaluations conducted in the states of Pennsylvania and Washington provide a mixed picture. The net employment multiplier effects may be small and the failure rates for new businesses may be high. Given the obvious scope for the growth of the private sector, such a program may be more successful in transitional economies.

Job search assistance. Some found job search assistance, providing inexpensive, quick intervention at the site, among the most efficient programs (Seitchik and Zornitsky 1989, and Leigh

1990). Compared to formal training has a much larger bang for the buck in recent U.S. evaluations. For example, Leigh (1990) reports that job search assistance strongly affects re-employment earnings, placement and employment rates, and level of unemployment insurance benefits.

Mass-layoff assistance. Research in the U.S. has found that worker displacement associated with mass layoffs is often followed by prolonged and difficult periods of adjustment. Lengthy unemployment durations, substantial decreases in labor force participation and large real earnings reductions at reemployment are among the major consequences for affected workers.²⁰ There is no reason to expect easier adjustments in FSU economies.

Research on worker displacement in the U.S. and Canada has found that activist policy responses can lessen these effects. Early intervention by employment offices (including initial contacts before displacement actually takes place) and providing a variety of adjustment services such as counselling, job search assistance, assistance in the preparation of resumes, skills assessments all can facilitate successful transitions to other jobs. Encouragement of active job search early in the period of unemployment also has been shown to speed reemployment.

Active and timely interventions require substantial commitments of resources, far beyond the capacities of FSU economies' current employment offices. However, the payoffs in unemployment reductions may make the commitment of resources cost effective.

4. Concluding Remarks

A key feature of the transition of the FSU economies will be a massive displacement of workers, together with labor shortages for certain skills. One of the major challenges of the transition will therefore be to reallocate labor at the lowest social costs — that is, designing policies and programs that will fit both workers' interests and needs and changing employment opportunities. To that end, a radical overhaul of the labor market institutions from the Soviet era is called for.

While the general orientation of the labor market reforms in the FSU economies — leaving primary responsibility for finding a job to the individual, and letting state provide a social safety net

²⁰ Tabular summaries from each of the five dislocated worker surveys conducted in the U.S. between January 1984 and January 1992 have consistently shown these patterns.

and a conducive environment for generation of jobs — is undoubtedly correct, these economies face a host of problems in their efforts to bring such an orientation into life. These problems range from choosing the right pace of labor reallocation, to setting up a well-functioning wage determination system, to fostering geographic mobility, to providing adequate income support to jobless and the poor, and to designing appropriate active labor market policies. Although the experience of Western economies shows that government can play a key role in speeding reemployment while cushioning displaced workers from loss of earnings, the complexities of the process of transition preclude faithful copying of programs and policies of other countries. (Armenia's problems are even more acute because of the military conflict with Azerbaijan and associated economic blockade.)

In these circumstances labor market policy prescriptions — regarding a wide range of issues — cannot be offered with confidence. To us it seems prudent to avoid mistakes such as rigid adherence to a single set of policy prescriptions. To determine which policies are most effective, a trial and error approach is suggested. Further, appropriate policies will undoubtedly change if underlying macro circumstances change, e.g., the rate of inflation declines.

Some general policy guidelines do seem appropriate. First, undertake several initiatives as opposed to exclusive reliance on a single policy intervention. Worker training may be the most productive intervention, but this conclusion should be derived from actual experience where other interventions such as job search assistance, self employment grants and temporary public employment are also undertaken. Second, resources should be devoted to monitoring and evaluating the various interventions. This is a key aspect of an empirical (as opposed to ideological) approach for ascertaining "what works." Third, coordinate the active policy interventions as well as the interface between active and passive instruments. Fourth, be influenced by the present macro environment and be prepared to change as the environment changes. One opportunity afforded by high inflation, for example, is to widen the wedge between wages and the various cash and in-kind transfers. Restraining growth in the level of transfer payments will improve work incentives at the same time it saves on budget expenditures and employer labor costs.

The virtue of flexibility cannot be overemphasized. Some policy interventions will be unsuccessful. Others may work better than expected and be worthy of wider application.

Terminating policy initiatives as well initiating them must be done. Flexibility is also required in the face of changes in economic circumstances. When inflation abates, for example, it will then be more appropriate to consider paying cash benefits on the basis of prior earnings. Another way to characterize this approach is to be sensitive to signals and to changes in signals. This frame of mind will help to avoid big errors that economies in transition can ill afford.

REFERENCES

- Abraham, Katharine and Vodopivec, Milan (1991). Labor Market Dynamics During the Transition of a Socialist Economy. World Bank: Research Proposal, processed.
- Blinder, Alan S. (1990). Paying for Productivity. A Look at the Evidence. Washington DC: The Brookings Institution.
- Coricelli, Fabrizio, and Ana Revenga, eds (1992). "Wage Policy during the Transition to a Market Economy: Poland 1990-91," World Bank Discussion Paper 158, Washington, DC: The World Bank.
- Garfinkel, Irwin and John L. Palmer (1978). "Issues, Evidence, and Implications," in John L. Palmer, ed., Creating Jobs: Public Employment Programs and Wage Subsidies. Washington, DC: Institute for Research on Poverty and the Brookings Studies in Social Economics, Brookings Institution.
- Gavin, Michael (1993). Unemployment and Economics of Gradualist Policy Reform, Columbia University, processed.
- Hamermesh, Daniel S. (1978). "Subsidies for Jobs in the Private Sector," in John L. Palmer, ed., Creating Jobs: Public Employment Programs and Wage Subsidies. Washington, DC: Institute for Research on Poverty and the Brookings Studies in Social Economics, Brookings Institution.
- Haveman, Robert H. (1978). "The Dutch Social Employment Program," in John L. Palmer, ed., Creating Jobs: Public Employment Programs and Wage Subsidies. Washington, DC: Institute for Research on Poverty and the Brookings Studies in Social Economics, Brookings Institution.
- Houseman, Susan N. (1988). "Shorter Working Time and Job Security," in Robert Hart, ed., Employment, Unemployment and Labor Utilization, London: Unwin Hyman.
- Laczko, Frank and Chris Phillipson (1991). Changing Work and Retirement: Social Policy and The Older Worker, Philadelphia: Open University Press.
- Layard, Richard (1990). Wage Bargaining, Incomes Policy and Inflation: Possible Lessons for Eastern Europe. World Bank Seminar on Managing Inflation in Socialist Economies, Vienna March 1990.
- Leigh, Duane E. (1990). Does Training Work for Displaced Workers? A Survey of Existing Evidence. Kalamazoo, MI: Upjohn Institute for Employment Research.
- Mangum, Stephen L., Garth L. Mangum and Janine Bowen (1992). "Strategies for Creating Transitional Jobs during Structural Adjustment," World Bank, PR Working Paper no. 947.

- Mitchell, Olivia S. (1992). **Retirement Systems in the OECD: Institutional Features, Economic Effects, and Lessons for Economies in Transition.** School of Industrial and Labor Relations, Cornell University, processed.
- Oxenstierna, Susanne (1991). "Trends in Employment and Unemployment in the USSR," Stockholm Institute of Soviet and East European Economics, processed.
- Seitchik, Adam, and Jeffrey Zornitsky (1989). From One Job to Another. Worker Adjustment in a Changing Labor Market. Kalamazoo, MI: Upjohn Institute for Employment Research.
- U.S. Department of Labor (1986). "Economic Adjustment and Worker Dislocation in a Competitive Society," Report of the Secretary of Labor's Task Force on Economic Adjustment and Worker Dislocation, Washington, DC.
- Vodopivec, Milan (1991a). "The Persistence of Job Security in Reforming Socialist Economies," Soviet Studies 1991, No. 6, pp. 1011-1025.
- Vodopivec, Milan (1991b). "The Labor Market and the Transition of Socialist Economies." Comparative Economic Studies, vol. 33, no. 2, pp. 123-158.
- Weitzman, Martin L. (1984). The Share Economy. Boston, MA: Harvard University Press.

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